Have Your DNA and Eat it Too!

Follow up Questions **Answer Key**

What do the toothpicks represent in the candy model? **Application**

**A: Hydrogen bonds**

Why could just the licorice not be considered a complete representation of the backbone? How could the model be adjusted? **Synthesis**

**A: - because the backbone consists of both a sugar group and a phosphate group**

* **Create the backbone out of two different materials**

Why does using only one marshmallow for every nitrogen base make this model less accurate? **Analysis**

**A: - because it uses the same size marshmallow for different sized base pairs. The purines have two carbon-nitrogen rings and the pyrimidines have one carbon-nitrogen ring, so only one marshmallow to represent both creates an inaccurate scale.**

Why does one strand of DNA need to be upside down? **Comprehension**

**A: so that the bases on both strands can point towards the center/face each other**

What shape did you make out of the candy DNA? **Knowledge**

**A: a double helix**

If this was the DNA for an organism, what might it be called?

**A: any made up organism name… eg: the gingerbread man**